

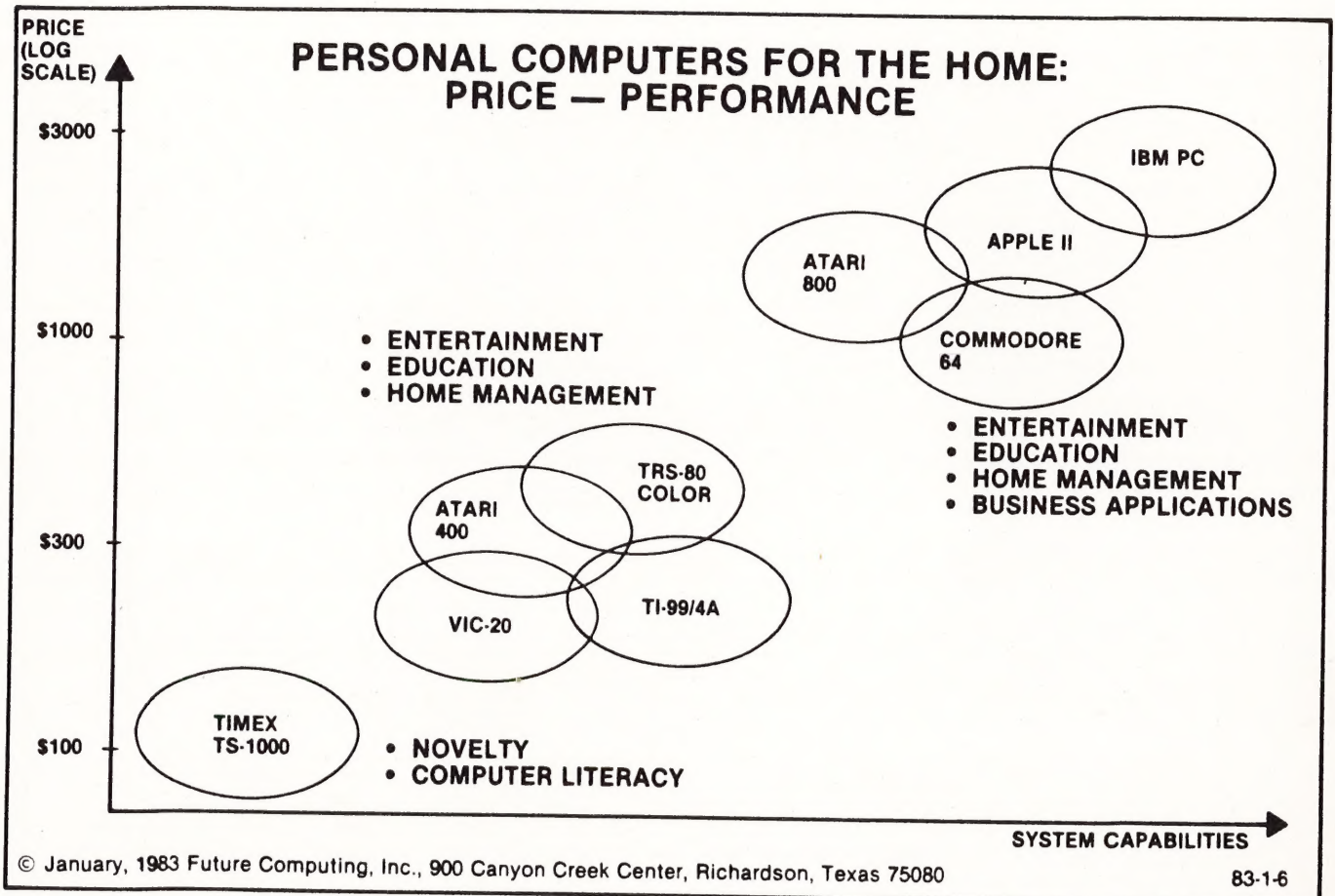
## Not Quite Finished Award

Video Technology had a mini-booth, but a maxi-product, the VZ200. The unit has Microsoft Basic in a 12K ROM, 4K

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(cont.)



This chart shows two gaps in the continuum of price and performance of computers, one at around \$200 and another at \$700-800. The lower gap was totally erased by the new machines introduced at CES. With seven computers under \$200 and the announcement of Vic and Atari price reductions, there is continuous overlap from \$65 to \$600. The price

reduction on the Atari 800 and the new Atari 1200XL fall in the upper gap, however, we expect to see more entries before long.

The chart is from Future Views (\$365 per year), 900 Canyon Creek Road, Richardson, TX 75080.



of RAM expandable to 64K, eight colors, and one sound channel. Although the screen is medium resolution (128 x 64 pixels), the 64 built-in graphics characters permit excellent graphics to be displayed. A built-in cassette interface and optional Centronics parallel interface help make VZ200 the sleeper of the show at just \$99!

If you've been reading *Creative Computing* faithfully, you saw our in-depth review of the Sinclair Spectrum introduced in England about a year ago. Now, Timex has brought it to the U.S. as the Timex 2000. It carries a list price of \$149 for the 16K model and \$199 for the 48K one.

The 2000 is an outstanding computer with 40 real keys, eight-color high resolution display (256 x 192 pixels), ten-octave sound channel (one of us can't hear that much!), upper and lower case, and 16 graphics characters. Our only disappointment is that it does not have a space bar and thus, like the Aquarius, cannot be used for touch typing.

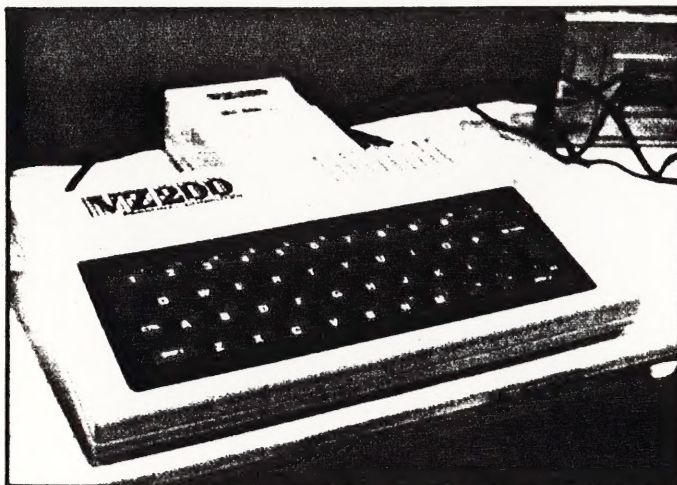
Timex also announced the 2040 printer, a 32-column thermal unit that uses white paper (not the silver stuff of the previous Sinclair printer). It works on both the 1000 and 2000 and costs \$99.

At this point it is probably appropriate to announce the

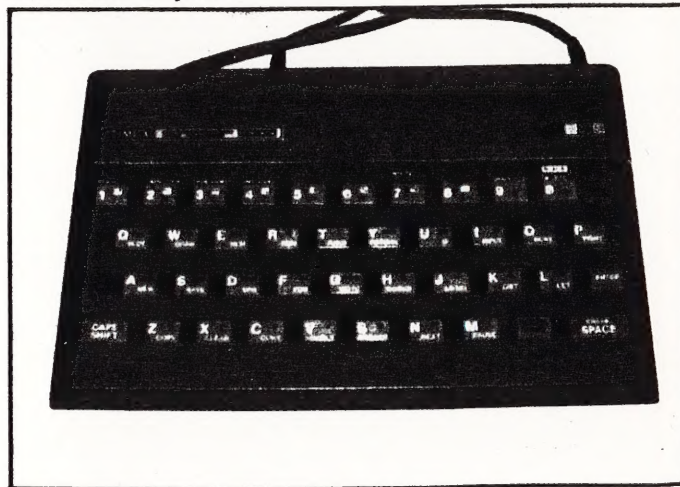
### We're Number 1 Award

Three manufacturers tried to lay claim to this award before we even announced it. Commodore, having just produced their 1,000,000th Vic 20 claimed to be Number 1. TI pooh-poohed that and claimed that the 99/4A had made them Number 1. Clive Sinclair was having none of it and claimed that he had been Number 1 for ages. Who is really Number 1?

*Video Tech VZ200 is a great bargain at \$99.*



*Timex 2000 computer.*



New Computers	Unisonic Futura 8300	Texas Instruments 99/2	Video Technology VZ200	Sanyo PHC20
MPU	Z80A	9995	Z80A	Z80A
Built-in RAM Memory	2K	4.2K	4K	4K
Expandable To	32K	36.2K	64K	16K
Built-in ROM Memory	8K	24K	12K	8K
Type of Basic	Sinclair	TI	Microsoft	Microsoft
Number of Keys	42	48	45	56
Standard Layout?	No spcbar	Yes	No spcbar	Yes
One-Stroke Basic Cmds?	Yes	No	Yes	No
Upper and Lower Case	No	No	No	No
Graphics Characters	20	16	64	0
Text Resolution (Chars x Rows)	32 x 24	28 x 24	32 x 16	32 x 16
Resolution (Pixels)	64 x 48	256 x 192	128 x 64	64 x 64
Colors	B & W	B & W	8	B & W
Sound Channels	1	0	1	0
Octave Range	n/a	n/a	n/a	n/a
Cassette Baud Rate	250	1200	600	1200
Serial Ports (RS-232)	optional	Hex bus		0
Parallel Ports	n/a	Hex bus	optional	0
Parallel Protocol	n/a	TI	Centronics	n/a
Dimensions (Width x Depth x Height)	n/a	n/a	11.5 x 6.3 x 2.0	11.8 x 6.3 x 1.6
Retail Price	\$90	\$100	\$99	\$99

In terms of sheer number of units, Sinclair is if you add together those sold under both the Sinclair and Timex names (which we think is reasonable to do). If you insist on just one brand, then the Commodore Vic 20 is the leader. By next year, who can say? Maybe TI will claim the Number 1 spot.

IBM, of course, was keeping a low profile. However, we're sure they would insist that dollar volume is a better measure, in which case they are clearly it. Despite having a fair size booth, IBM was not the hit of CES. Quite the contrary, particularly since several trade magazines had predicted that IBM was about to release a consumer computer at CES (they didn't). One even went so far as to put it on the front page of their daily publication on the last day of CES. For this, they and IBM must share the

### Computer? What Computer? Award

Back to Sinclair printers and peripherals. *Mindware* introduced one of the strangest devices at the show, the Sidewinder, a sideways printer for Sinclair computers. It is also available for the Vic 20, TI 99/4A, Atari and any computer with an RS-232 serial interface.

Sidewinder uses 1-3/4" adding machine paper with a dot matrix print mechanism that allows reproducing material wider than the computer display by generating a 12-line printout that runs lengthwise on the paper. Price of the MW-100 is just \$139.95.

*Data-assette* showed several new additions and software packages for

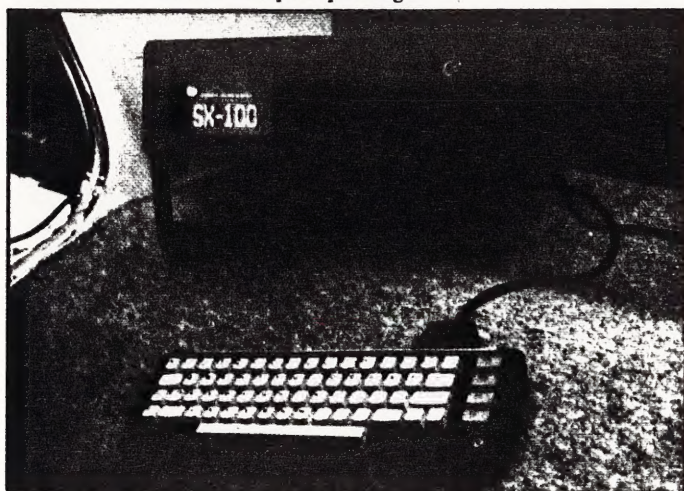


Sanyo PHC25	Timex Sinclair 2000	Mattel Aquarius	Texas Instruments CC-40	Spectra Video SV-318	Panasonic JR-200
Z80A	Z80A	Z80A	9995	Z804	6802
16K	16K	4K	6K	32K	32K
48K	48K	52K	128K	128K	32K
24K	16K	8K	32K	32K	16K
Microsoft	Sinclair	Microsoft	TI	Microsoft	Microsoft
65	40	49	65	71	63
Yes	No spcbar	No spcbar	Yes	Yes	Yes
No	Yes	Yes	No	No	Yes
No	Yes	Yes	Yes	Yes	Yes
	16 (35)	170?	16	52	64
32 × 16	32 × 24	40 × 24	40 × 24	40 × 24	32 × 24
256 × 192	256 × 192	320 × 192	256 × 192	256 × 192	64 × 48
8	8	16	16	16	8
3	1	1 (2 opt)	3	3	3
n/a	10	n/a	n/a	8	5
1200	1500	1200	1200	300/1200	2400
optional		optional	Hex bus	1	optional
1	1	n/a	Hex bus	1	1
Centronics	Sinclair	n/a	n/a	n/a	Centronics
11.8×	9.2×	13.0×	9.5×	n/a	13.8×
6.3 × 2.0	5.6 × 1.2	6.0 × 2.0	5.7 × 1.0		8.2 × 2.2
\$199	\$149	\$200	\$249	\$299	\$349

Timex/Sinclair computers (read all about them in the big *SYNC* directory issue). Also at their booth was the Jupiter Ace computer. While outwardly it resembles a Sinclair with real keys, inside it speaks Forth rather than Basic. Forth aficionados will tell you, usually with no prompting, that Forth is 10 times as fast as Basic, much more compact, and much more powerful. So it makes sense in a small computer like this one (3K).

Commodore was showing several new peripherals, most notably the Vic-1520 four-color printer/plotter with 20, 40, or 80 (tiny) characters per line. It prints sideways or lengthwise on 4-1/2" wide paper. Price \$199. A speech synthesizer spoke to us as we walked by and several new software packages tried to attract our attention as we headed toward the

*Commodore 64 in a compact package.*



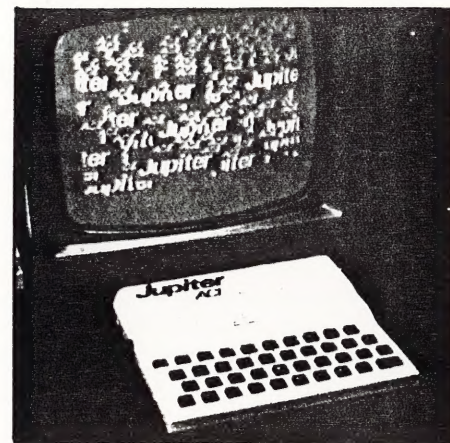
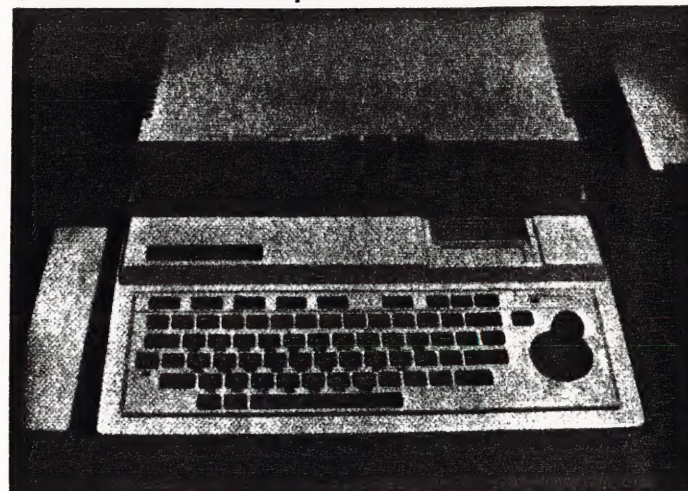
crowd in the back of the booth.

There we found a Commodore 64 re-designed to fit in a portable case about half the size of an Osborne. It had a color display, was battery powered, and looked very inviting. It was just a prototype, but judging from the enthusiasm at the show, it should find its way into production in short order.

Commodore also announced a dealer price reduction on the Vic 20 which should have the effect of lowering the street price to \$150, possibly less.

While we're talking about the Vic, we should mention that Cardco was showing two expansion boards (one with three slots and one with six), a cassette interface, a light pen, a printer interface, and, hold on to your hats, an adapter to allow the Vic to play Atari VCS cartridges. This latter device was shown

*Spectra Video SV-318 computer.*



*Jupiter Ace speaks Forth, not Basic.*

with much secrecy in an out-of-the-way hotel room with a rent-a-guard at the door. It gets our

## Best Protected Orange Cardboard Box Award

Housed, temporarily we were told, in an orange cardboard and Scotch tape box, the device plugs into the expansion connector on the back of the Vic and has a slot into which VCS cartridges are plugged. It also brings the Vic connector out the back for added memory, etc. The Vic function keys take the place of the VCS switches and the whole thing works like a charm. Price is \$89.95.

Spectra Video introduced a new computer, the SV-318, with 32K, Microsoft Basic, CP/M compatibility, 71-key full stroke keyboard, high resolution (256 x 192 pixels) 16-color graphics, and three-channel music synthesizer—all for \$299. For this feat, we award them our

## Most Bang For the Buck Award

Not only is the basic computer quite astonishing, but Spectra Video's energetic president, Harry Fox, showed us